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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,715	06/11/2001	Stephen John McLoughlin	01 PAT 140	2076

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ALWORTH LAW & ENGINEERING  
505 CUMBERLAND ROAD  
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EXAMINER
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COLLINS, GIOVANNA M

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 01/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/878,715

Applicant(s)

MCLOUGHLIN ET AL.

Examiner

Giovanna M. Collins

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-9,17-32,34 and 47-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,9,17-32,34,47 and 50-53 is/are rejected.
- 7) ☒ Claim(s) 5-8,21,48 and 49 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: On page 23 of the Amendments to Specification line 5, the phrase “taken at 8A-8A in Figure 8” should be changed to - - taken at 9-9 in Figure 8 - -.

On page 14, line 4 of the original Specification the phrase “mandrel 4” should be changed to - - mandrel 11 - -.

In claim 27, line 2 the word “with” should be changed to - - within - -.

Claim 28 recites “said logic means are located within a tubular housing connected at least one of the mandrel, direction controller or housing”. This phrase is incomplete. It appears that the Applicant intended to recite - - said logic means are located within a tubular housing connected to at least one of the mandrel, direction controller or housing - -.

In claim 30, line 2, the phrase “fluids.30.” should be changed to - - fluids. - -.

Appropriate correction is required.

### *Drawings*

2. The drawings are objected to because on page 17, lines 9, the original specification states “The thrust bearing, between the two elements, see location 28, on Figure 9”. However, Figure 9 has no element 28.

In Figures 2 and 3 the element labeled “11A” should be changed to - - 11B - -.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the directional controller being a

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single sleeve must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1,4,9,17-20,22-32,34,47,50-53 are rejected under 35 U.S.C. 102(b) as being anticipated by McLoughlin et al. ('570).

McLoughlin discloses (see Fig. 1) an apparatus for selectively controlling the direction of a well bore comprising a mandrel (11) rotatable about a rotation axis; a direction controller (12) comprising three parts (a top portion right below element 11, a middle portion located in the top section of element 13 and a bottom portion located in the bottom section of element 13) configured to apply a force to the mandrel having a component perpendicular to the rotation axis and having a component parallel to the rotation axis wherein the mandrel freely rotates within

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the direction controller; a housing (13) having an eccentric longitudinal bore forming a weighted side and being configured to freely rotate under gravity about the rotation axis wherein the housing contains the direction controller and a driver (see col. 7, lines 5-8) for selectively varying the angle of the force relative to the weighted side of the housing about the axis wherein the driver is configured to move the direction controller independently of the housing.

Referring to claim 3, McLoughlin discloses the parts can be configured to apply a null force to the mandrel (see col. 4, lines 41-43).

Referring to claim 4, McLoughlin discloses the direction controller comprises a single sleeve (12) with an eccentric bore to receive the mandrel.

Referring to claim 9, McLoughlin discloses the sleeve (12) is at least partially located within the eccentric bore of the housing (13).

Referring to claim 17, McLoughlin discloses an apparatus for selectively controlling the direction of a well bore comprising a mandrel (11) rotatable about a rotation axis; a direction controller (12) comprising a plurality of parts (a portion outside of element 13 and a portion located inside element 13) configured to apply a vector force to the mandrel; a housing (13) having an eccentric longitudinal bore forming a weighted side and being configured to freely rotate under gravity; a driver (see col. 7, lines 5-8) for selectively varying the angle of the force relative to the weighted side of the housing about the axis wherein the driver is configured to move the direction controller independently of the housing; the mandrel freely rotates within the direction controller and the housing contains the directional controller.

Referring to claim 18, McLoughlin discloses (see Fig. 4) a plurality of stabilizer shoes (21) on the outside of the housing (13).

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Referring to claim 19, McLoughlin discloses the stabilizer shoes (21) are circumferentially offset by a predetermined amount in relation to the weight of the housing.

Referring to claim 20, McLoughlin discloses two stabilizers (21).

Referring to claim 22, McLoughlin discloses the drive means is an electric motor (see col. 4, lines 64-65).

Referring to claim 23, McLoughlin discloses logic means to determine when the direction of the force applied should be moved (see col. 11, lines 32- 52).

Referring to claim 24, McLoughlin discloses the logic means comprises a sensor for sensing drilling parameters and decoding the pulses to determine when the direction of the force applied by the direction controller should be changed (see col. 14, lines 13-17).

Referring to claim 25, McLoughlin discloses the logic means comprises a sensor for sensing well bore fluid flow pulses and decoding the pulses to determine when the direction of the force applied by the direction controller should be changed (see col. 11, lines 32-52).

Referring to claim 26, McLoughlin discloses the logic means comprises means for decoding and commanding the driver to changed the direction of the force relative to the housing (see col. 14, lines 13-17).

Referring to claim 27, McLoughlin discloses the driver and the logic means are stored within the housing (see col. 14, lines 62-63).

Referring to claim 28, McLoughlin discloses the logic means are located within a tubular housing connected to at least one of the mandrel , direction controller or housing (see col. 14, lines 64-67).

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Referring to claim 29, McLoughlin discloses an energy source for supplying power to the driver and the logic means (see col. 15, lines 1-2).

Referring to claim 30, McLoughlin discloses the mandrel (11) has a longitudinal bore and the bore is capable of passing well bore fluids.

Referring to claim 31, McLoughlin discloses signaling means (15,16,17) for signaling the direction of the force relative to the weighted side of the housing.

Referring to claim 32, McLoughlin discloses the mandrel is connected to a drill string wherein said drilling parameters include drill string rotation and said logic means includes means for detecting drill string rotation wherein said drill string rotation determines when direction of the force is changed with respect to said outer housing (see col. 14, lines 17-22).

Referring to claim 34, McLoughlin discloses the mandrel is connected to a drill string wherein said drilling parameters include drill pipe rotation and said logic means includes means for detecting drill string rotation and determining a time period between rotation and non-rotation of the drill string wherein said time period determines when the angle of said force should be changed with respect to the weighted side of said housing (see col. 14, lines 23-30).

Referring to claim 47, McLoughlin discloses (see Fig. 8) wherein said driver (27) comprises a drive wheel (25) and a track (26), said drive wheel being engagable with said track such that movement of said drive wheel causes movement of said track relative to said drive wheel and said drive wheel when stationary prevents movement between said track and drive wheel, the drive wheel and track being located such that movement of the drive wheel effects relative movement between the force and the weighted side of the housing.

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Referring to claim 50, McLoughlin discloses said track (26) is located on a surface of said direction control means (12) and said drive wheel is mechanically connected to said housing (13).

Referring to claim 51, McLoughlin discloses the drive means is a hydraulic motor (see col. 4, lines 58-59).

Referring to claim 52, McLoughlin discloses the drive wheel (25) comprises a plurality of teeth about its edge, and said track (26) comprises a plurality of teeth which are configured to interlock with the teeth of said drive wheel to effect relative movement therebetween.

Referring to claim 53, McLoughlin discloses the direction of the force is changed by a predetermined angle in response to rotation of said drive wheel (25) through a predetermined rotation angle.

#### ***Allowable Subject Matter***

5. Claims 5-8,21 and 48-49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments filed 5/27/2003 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e. the sleeve is



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comprised of three separate portions and only the upper portion and lower portions of the sleeve are in contact with the housing) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to the argument that the first McLoughlin device is incapable of applying a null force to the mandrel, McLoughlin ('570) states in col. 4, lines 41-43, that "internal means can be added to include a "null" or "zero bias" position as an option".

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 703-306-5707. The examiner can normally be reached on 6:30-3 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 703-308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

gmc



**David Bagnell**  
**Supervisory Patent Examiner**  
**Technology Center 3670**